



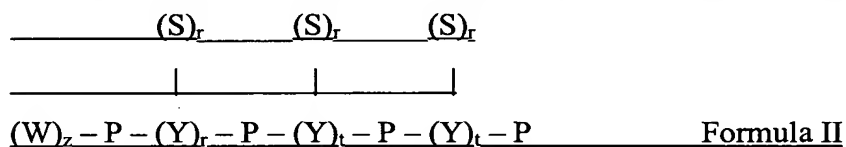
 is 0 to 2

n is 0 to 3

m is 0 to 3

wherein if n = 0 then m > 0; wherein if m = 0 then n > 0; wherein if q is 1, r is 1, and if q is > 1
at least one of Y is sulfated; and further wherein the antibody, antigen-binding fragment
thereof, or complex thereof comprises a first hypervariable region comprising SEQ ID NO:
20.

Claim 19. (currently amended) A human ~~A~~ antibody, antigen-binding fragment thereof, or
 complex thereof comprising at least one antibody or antigen-binding fragment thereof,
wherein the antibody, antigen-binding fragment thereof, or complex thereof is capable of
binding to or cross reacting with the an isolated epitope of claim 5 comprising the formula



Wherein:

W is any amino acid other than Aspartate and Glutamate

Y is an amino acid selected from the group consisting of Tyrosine, Asparagine, Serine
and Threonine

P is independently selected from $(A)_m(A)_n(X)_u$ or $(X)_u(A)_n(A)_m$ or $(A)_n(X)_u(A)_m$
or $(A)_n(A)_m(X)_u$ or $(X)_u(A)_m(A)_n$ or $(A)_m(X)_u(A)_n$

S is a sulfate or a sulfated molecule

X is any amino acid except Aspartate, Glutamate or Tyrosine

A is independently selected from the group consisting of any negatively charged
amino acid, leucine, isoleucine, proline, phenylalanine, serine, and glycine

z is 0, 1, or 2

r is 0 or 1

t is 1, 2 or 3

u is 0 to 2

n is 0 to 3

m is 0 to 3
wherein if n = 0 then m > 0; wherein if m = 0 then n > 0; wherein at least one Y is sulfated;
and further wherein the antibody, antigen-binding fragment thereof, or complex thereof
comprises a first hypervariable region comprising SEQ ID NO: 20.

Claim 20. (currently amended) A human ~~an~~ antibody, antigen-binding fragment thereof, or
complex thereof comprising at least one antibody or antigen-binding fragment thereof,
wherein the antibody, antigen-binding fragment thereof, or complex thereof is capable of
binding to or cross reacting with the ~~an~~ isolated epitope of claim 9 comprising the formula

 (S)_r (S)_r (S)_r
 | | |
(G)_z(X)_u(E)_n(D)_m(Y)_t(X)_u(E)_n(D)_m(Y)_t(X)_u(E)_n(D)_m(Y)_t(D)_m(E)_n(X)_u Formula III
(SEQ ID NO:216)

Wherein:

 G is Glycine
 E is Glutamate
 D is Aspartate
 Y is Tyrosine
 S is sulfate or a sulfated molecule
 X is any amino acid except glycine, glutamate, aspartate and tyrosine
 z is 0, 1, or 2
 t is 1, 2 or 3
 r is 0 or 1
 u is 0 to 2
 n is 0 to 3
 m is 0 to 3

wherein at least one Y is sulfated; wherein if n = 0 then m > 0; wherein if m = 0 then n > 0;
and further wherein the antibody, antigen-binding fragment thereof, or complex thereof
comprises a first hypervariable region comprising SEQ ID NO: 20.